POSTTRAUMATIC STRESS DISORDER

A COMPREHENSIVE TEXT

EDITED BY

PHILIP A. SAIGH
Graduate School and University Center
of the City University of New York

J. DOUGLAS BREMNER
Yale University School of Medicine
and Veterans Administration
Connecticut Health Care System
West Haven Campus

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CHAPTER 1

THE HISTORY OF POSTTRAUMATIC STRESS DISORDER

PHILIP A. SAIGH, PH.D.
Graduate School and University Center
of the City University of New York

J. DOUGLAS BREMNER, M.D.
Yale University School of Medicine and Veterans Administration
Connecticut Health Care System West Haven Campus

HISTORICAL ACCOUNTS OF REACTIONS TO EXTREME STRESS

Information involving the effects of traumatic experiences have been chronicled for centuries. An early example is evident in the 1666 diary of Samuel Pepys. Six months after Pepys survived the Great Fire of London, he reported that "it is strange to think how to this very day I cannot sleep a night without great terrors of the fire; and this very night could not sleep to almost two in the morning through great terrors of the fire" (quoted in Daly, 1983, p. 66). Da Costa (1871), an American physician treating casualties of the American Civil War (1861–1865), described increased arousal, irritability, and elevated heart rate in soldiers exposed to combat. This cluster of symptoms came to be known as "Da Costa's Syndrome," or "Soldiers Irritable Heart," and was felt to reflect a physiological disturbance related to exposure to the stress of combat (Trimble, 1981). Kraepelin, the nineteenth-century German nosologist, subsequently coined the term "schreckneurose," or fright neuroses, to describe a psychiatric condition "composed of multiple nervous and psychic phenomena arising as a result of severe emotional upheaval or sudden fright which would build up great anxiety; it can therefore be observed after serious accidents and injuries, particularly fires, railway derailments or collisions" (Kraepelin, 1896, translated by Jablensky, 1985, p. 737).

During the First World War, medical practitioners documented the effects of war-related stressors across a wide range of combatants (Freud, 1917; Hurst, 1916; Mott, 1919; Southard, 1919). Freud theorized that war trauma "presents the mind with an increase of stimulus too powerful to be dealt with or worked off in the normal way, and this must be result in permanent disturbances" (p. 275). Southard (1919) recounted the psychiatric morbidity of 589 combatants who suffered from "shell shock." Among these cases was a French corporal who was buried after a shell hit his trench. Although the man escaped without physical injury "his pulse was variable; at rest it stood at 60; if a table nearby was struck suddenly, it would go up to 120" (Southard, 1919, p. 309). In a similar vein, Mott (1919) recorded the following autobiographical description of a British lieutenant who was hospitalized in Great Britain after being trapped behind enemy lines in France:

> *During the five days spent in the village of Rouex, I was continually under our own shell fire and also continually liable to be discovered by the enemy, who was also occupying the village. Each night I attempted to get through his lines without being observed, but failed. On the fourth day my sergeant was killed by a*

shell. During this time I had nothing to drink or eat, with the exception of about a pint of water. On the fifth day I was rescued by our own troops while I was unconscious. At the present time I am subject to dreams in which I hear these shells bursting and whistling through the air. I continually see my sergeant, both alive and dead, and also my attempts to return are vividly pictured. I sometimes have in my dreams that feeling of intense hunger and thirst which I had in the village. When I awaken I feel as though all the strength had left me and am in a cold sweat. For a time after awaking I fail to recognize where I am, and the surroundings take on the form of the ruins in which I remained hidden for so long. Sometimes I do not think that I thoroughly awaken, as I seem to doze off, and there are conflicting ideas that I am in the hospital, and again that I am in France. During the day, if I sit doing nothing in particular and find myself dozing, my mind seems to immediately begin to fly back to France (pp. 126–127).[1]

In 1934, Prasard provided a general account of the psychological distress that occurred in India following a devastating earthquake. In contrast to early reports involving traumatized adults, Bender and Blau (1937) published one of the first articles involving the psychiatric distress of sexually abused youth (age range 5–13 years). Bender and Blau made direct reference to the children's fears, nightmares, avoidance, irritability, trauma reminiscent re-enactments, and hypervigilance. Adler (1943) went on to make reference to the "post-traumatic mental complications" of the survivors of Boston's Coconut Grove nightclub fire.

During the Second World War, mental health practitioners evaluated and treated thousands of psychiatric casualties (Grinker & Spiegel, 1945; Hastings, Wright, & Glueck, 1994; Kardiner, 1941; Lewis, 1942; Raines & Kolb, 1943; Solomon, 1942; Vernon, 1941). In their salient work *Men Under Stress,* Grinker and Spiegel (1945) described the symptoms of a B-24 gunner with "combat neuroses." According to Grinker and Spiegel, the man's aircraft was hit by flack over Germany. One motor was knocked out and the wings were perforated by shrapnel. This induced the gradual loss of gasoline that was essential for the crew's return. Over the English Channel, the airplane ran out of fuel and the pilot crash-landed. Although the gunner could not swim, his pilot assisted him, and the two were able to escape the sinking craft. Unfortunately, the rest of the crew did not escape. As the gunner had survived without physical injury, he was given a furlough and subsequently assigned to another air crew. Shortly thereafter, he began to evidence stress-related symptoms. According to Grinker and Spiegel:

The night before his first scheduled mission he was very restless and had difficulty in falling asleep. In a terrifying nightmare he dreamed he was back in the plane with his crew, preparing to ditch. It was more frightening than the actual event. He saw himself in the plane, under the water, trying to find a way out. The bombardier appeared and showed him a hole in the plane, motioning to him to get out. He awoke suddenly crying, with the realization that the bombardier never got out. After that he could not go back to sleep but lay quietly, smoking cigarettes, until it was time for the briefing. He could not eat breakfast and during the briefing felt strangely cold. His hands shook and he could not concentrate on the details of the raid to come. He tried to shake off a growing feeling of dread and forced himself to get into the plane with an assumed nonchalance.

On the way out to the target, everything worried him. He mistrusted the pilot, with whom he had never flown before, and worried about every unexpected bump and shudder of the plane. He had a feeling of imminent catastrophe which kept him rigidly tense, listening to any change in the pitch of the motors for signs of failure, constantly looking for an indication that his fears would be realized. When the plane passed over the sea on the way to the target, he fought off rising panic by crouching on the floor of the plane with his head clenched between his fists. Over the target, he felt more controlled and was able to stand by his guns and look for fighters, though his knees shook and his hands trembled. On the way back he continued to feel helpless, trapped, doomed, but still determined that he must not show how he felt to his crewmates. The mission was uneventful, but on his return he was weak and exhausted from the prolonged tension. He went immediately to his tent to lie down, hoping to get some relief from the iron grip of dread and fear. He had not eaten

[1]Mott, F. W. (1919). *War neuroses and shell shock.* London: Oxford University Press. Reprinted by permission.

that day and wanted nothing except sleep and relief. But he slept only fitfully, each time being awakened by the dream of his bombardier showing him how to get out of the sinking plane. Instead of being at peace, the night was as full of anxiety as the day's mission.[2]

While the aforementioned accounts involved traumatized adults, a number of war-related papers described similar symptoms of distress among children and adolescents. Bodman (1941), for example, surveyed British youth and observed that approximately 8 percent of the sample presented with psychological symptoms that were associated with air raids. These symptoms involved nightmares, war-specific fears, psychophysiological reactivity on exposure to war-related stimuli, avoidance behaviors, and misconduct. Mercer and Despert (1943) chronicled a similar pattern of posttraumatic emotional morbidity among French youth who were exposed to war-related events. Brädner (1943) documented how Finnish families were forced to leave their homes during the Russio-Finnish War, crowded into unheated railroad cars, moved to unspecified areas at night, and repeatedly strafed by Soviet aircraft. Bradner's report made direct reference to the children's posttraumatic fears, nightmares, blunted affect, avoidance, and psychological arousal on exposure to war-related stimuli. He also indicted that "even a year after the war, the sight of ruins had a profoundly depressing effect upon the children...war films, saddening war pictures in illustrated magazines, reports of war of any kind, still caused such symptoms of wartime to return at any given moment" (Bradner, 1943, p. 319).

Following World War II, a number of investigators described the emotional and psychophysiological distress of prisoners of war (Chadoff, 1963; Etinger, 1962; Friedman, 1948; Nadler & Ben-Shushan, 1989; Wolf & Ripley, 1947). Friedman (1948) used the term the Buchenwald Syndrome to describe the symptom pattern that he observed among Jewish youth who survived the Nazi death camps. Based on medical and psychiatric evaluations that were conducted at a detention center on the island of Cyprus, Friedman determined that 50 to 60 percent of the children had physical complaints without an organic etiology. He also reported that majority of these youth suffered from sleep disorders, subjective fears, hypervigilance, and "affective anesthesia."

Shortly following the surrender of Japan, Wolf and Ripley (1947) described the psychopathology of a sample of U.S. prisoners who had been held captive by the Japanese for approximately three years. In addition to having been forced to subside on inadequate rations and experiencing a number of diseases (e.g., beriberi, malaria, and dysentery), these men were subjected to forced labor, beatings, and more elaborate forms of torture. Wolf and Ripley reported that 22.9 percent of these cases evidenced war-related nightmares and fears, blunted affect, memory impairment, anger, and depression. Analogously, Etinger (1962) examined 100 Norwegian survivors of the German concentration camps and determined that 85 cases presented with chronic fatigue, impaired concentration, and irritability. He also reported that most of these subjects experienced "painful associations" that could occur in "any connection whatsoever, from seeing a person stretching his arms and associating this with his fellow prisoners hung up by their arms under torture, to seeing an avenue of trees and visualizing long rows of gallows with swinging corpses" (Etinger, 1962, p. 372).

Compelled by the prevalence of war-related psychiatric morbidity, the American Psychiatric Association's (APA) Committee on Nomenclature and Statistics included the classification *gross stress reaction* in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-I) of 1952. According to the 1952 manual, gross stress reaction was indicated in cases involving exposure to "severe physical demands or extreme stress, such as in combat or civilian catastrophe (fire, earthquake, explosion, etc.)" (APA, 1952, p. 40). The DSM-I also acknowledged (contrary to the prevailing psychodynamic view) that "in many instances this diagnosis applies to previously more or less 'normal' persons who experience intolerable stress" (APA, 1952, p. 40). While recognizing that exposure to extreme stress may induce significant psychological distress, the DSM-I did not provide

[2]Grinker, R. G., & Spiegel, J. P. (1945). *Men under stress.* Philadelphia: Blackstone. Copied with permission from Ayer Co., Inc. North Stratford, NH 03590.

operational criteria for formulating a gross stress reaction diagnosis.

Studies involving American veterans of the Korean conflict (Edwards & Peterson, 1954; Glass, 1954; Glass, Ryan, Lubin, Reddy, & Tucker, 1956; Lifton, 1954; Nobel, Roudebush, & Prince, 1952) further served to illustrate the unique distress that may be observed following exposure to traumatic events. Within this context, Nobel et al. (1952) examined a sample of wounded Korean conflict veterans and reported that 55 percent of the subjects presented with "startle reactions, occasional combat dreams, slight stammering, and other evidences of tension that had arisen during their combat experiences" (p. 496).

The 1950s and 1960s were marked by a great deal of pioneering research involving the psychological status of civilians who experienced natural and industrial disasters (Quarantelli, 1985; Saigh, 1992a). As it was assumed that information denoting the effects of civilian disasters (e.g., floods, hurricanes, tornados, and earthquakes) may be used to predict the psychiatric effects of war-related events (e.g., nuclear explosions), the National Academy of Sciences funded investigations that sought to assess the mental health of civilian disaster survivors (Saigh, 1992a). By way of example, Bloch, Silber, and Perry (1956) interviewed 185 youth who survived a tornado that devastated the town of Vicksburg, Mississippi, in 1953. Bloch et al. (1956) reported that many of these youth manifested nightmares, trauma-related reinactments (e.g., "tornado games"), irritability, and avoidance behaviors that were associated with tornado-related stimuli. Subsequent reports involving survivors of the sinking of the *Andrea Doria* (Friedman & Linn, 1957), the 1962 Alaska earthquake (Langdon & Parker, 1964), and the Bristol floods (Bennet, 1968) served to underscore the unique distress of traumatized survivors.

In 1968, the APA's Committee on Nomenclature and Statistics published the DSM-II. Whereas the DSM-I gross stress reaction classification had achieved a measure of recognition in the mental health circles (Anderson, 1985), the classification was omitted from the 1968 manual. In lieu of the former classification, *transient situational disturbance* was introduced. According to the DSM-II, this classification encompassed "transient disorders of any severity (including those of psychotic proportions) that occur in individuals without any underlying mental disorders and that represent an acute reaction to overwhelming environmental stress" (APA, 1968, p. 48). The DSM-II diagnostic category also listed a number of age-related sub-classifications (e.g., adjustment reaction of childhood). As in the case of the earlier gross stress reaction category, the transient situational disturbance classification did not include operational criteria for formulating a psychiatric diagnosis.

In 1972, Lacy examined 400 British students who survived a mud slide that engulfed an elementary school. Two years after the incident, he reported that the students were experiencing "sleeping difficulties, unwillingness to go to school or out to play, instability and enuresis" (Lacy, 1972, p. 259). He also observed that "bad weather, wind, rain and snow were very frightening for some children" (Lacy, 1972, p. 259) as an interval of inclement weather had preceded the mud slide.

Burgess and Holmstrom (1974) subsequently published an influential report involving *"rape trauma syndrome."* Their article was based on clinical interviews with 146 female rape victims. Burgess and Holmstrom's analysis led them to conclude that rape victims experience acute and long-term phases of distress. The acute phase involved symptoms of physical soreness, tension headache, insomnia, nightmares, genitourinary disturbance, anxiety, anger, and guilt. The long-term phase was associated with rape-related nightmares and thoughts, avoidance behaviors (46 percent relocated), subjective fears, and sexual dysfunction.

Also within the context of crime-related research, Kilpatrick, Veronen, and Resick (1979) conducted an analysis of postrape psychopathology over time. The authors administered the Modified Fear Survey (MFS; Veronen & Kilpatrick, 1979) to a sample of rape victims and a sample of non-stress exposed controls. The authors determined that the MFS scores of the rape victims at 6–10 days and 1 month significantly exceeded the scores of the control group. Kilpatrick et al. (1979) went on to perform an item

discrepancy analysis and determined that the rape victims were significantly more fearful of specific rape-related stimuli (i.e., emergency rooms, strangers, naked men, and being alone).

While initial reports involving the adjustment of American troops in Vietnam were very favorable (Bloach, 1969; Bourne, 1970), Albert Glass (1973), the noted military psychiatrist, advised that the "reported low rates of neuropsychiatric casualties from Vietnam may be questioned until all categories of non-combat losses are stated" (p. 998). Later research involving the mental health of Vietnam veterans (Horowitz & Solomon, 1975; Panzarella, Mantell, & Bridenbaugh, 1978; Shatan, 1978; Strayer & Ellenhorn, 1975) lent a good deal of support to Glass's concern. For example, Horowitz and Solomon's (1975) assessment of Vietnam veterans who were receiving psychiatric treatment led them to conclude that these patients suffered from *delayed stress response syndrome.* This syndrome was said to involve "nightmares, painful moods and storms, direct or symbolic behavioral repetitions and concomitant secondary signs such as impaired social relationships, aggressive and self-destructive behavior, and fear of loss of control over hostile impulses" (Horowitz & Solomon, 1975, p. 72).

Given this history, it is evident that traumatized individuals of all ages can develop pervasive and chronic psychological problems. It is also evident that a host of terms such as "schreckneurose," "gross stress reaction," and "rape trauma syndrome" have been used to describe very comparable forms of pathology. Unfortunately, the use of a wide range of competing terms to describe the same phenomenon veiled clinical parallels and hindered practice and research (Saigh, 1992a). Recognizing the extent of confusion within the area of traumatic stress studies, Kardiner (1969) lamented that "it is hard to find a province in psychiatry less disciplined than this one. There is practically no continuity to be found anywhere...the literature can only be characterized as anarchic. Every author has his own frame of reference" (p. 246). Obviously, the situation was clinically and theoretically unsound, and the need for an operational and widely recognized nosology was acutely apparent.

PTSD AND THE DSM-III, DSM-III-R, AND THE DSM-IV

DSM-III. Given the DSM-II's dearth of operational criteria, impoverished reliability data, and limited coverage (only 108 classifications were included) (Morey, Skinner, & Blashfield, 1986; Saigh, 1992a), the APA appointed a task force to amend the manual. Working under the stewardship of Robert Spitzer, M.D., mental health practitioners prepared symptomological profiles for 265 psychiatric classifications. The DSM-III (APA, 1980) Reactive Disorders Committee (Nancy Anderson, M.D., Robert Lifton, M.D., Chaim Shatan, M.D., Jack Smith, M.D., Robert Spitzer, M.D., and Lyman Wynne, M.D.) went on to draw on their clinical experience and the existing literature to formulate the diagnostic criteria for what came to be called *posttraumatic stress disorder* (PTSD). According to the DSM-III, PTSD was indicated by the "development of characteristic symptoms following a psychiatrically traumatic event that is generally beyond the realm of normal human experience" (APA, 1980, p. 236). The DSM-III also indicated that the "stressor producing this syndrome would evoke significant symptoms of distress in most people and is generally outside the range of such common experiences as simple bereavement, chronic illness, business losses or marital conflict" (APA, 1980, p. 236). The adoption of this perspective clearly served to integrate theory and practice as it acknowledged that divergent stressors (e.g., sexual assault, war-related events, serious accidents, or disasters) could induce comparable patterns of psychiatric morbidity.

The DSM-III included four sets of polymorphic symptom clusters for making a PTSD diagnosis. In addition to the mandatory exposure to extreme stress (Criterion A), Criterion B required the presence of one of three reexperiencing symptoms (distressing trauma-related thoughts, nightmares, or a sudden feeling that the traumatic event was reoccurring). Criterion C required the presence of at least one of three psychic numbing symptoms (diminished interest in significant activities, detachment or estrangement from others, and constricted affect). Criterion

D required the presence of at least two of six symptoms that were not apparent before the trauma (hyper alertness or exaggerated startle response, sleep disturbance, guilt, memory/concentration impairment, avoidance, and exacerbation of symptoms on exposure to traumatic stimuli). While the DSM-III PTSD classification provided a fairly discrete set of diagnostic symptoms and four pages of explanatory text, it did not offer information relative to the unique expression of symptoms by stress exposed children or adolescents.

DSM-III-R. Despite the widespread acceptance of the DSM-III, revisionary efforts were begun in 1983 and the DSM-III-R was published in 1987 (Saigh, 1992a). In keeping with the precedent that was set by the DSM-III, the 1987 nosology indicated that PTSD may occur after a "psychologically distressing event that is outside the range of normal human experience" (APA, 1987, p. 247) (Criterion A). On the other hand, Criterion B was modified to require the presence of a minimum of one of four reexperiencing symptoms (recurrent and intrusive, distressing recollections and dreams of the stressful event, recurrent distressing about the trauma, sudden acting or feeling that the traumatic event was reoccurring, and intense psychological distress upon exposure to trauma reminiscent stimuli). Criterion C was also broadened to include at least three of seven avoidance or numbing symptoms (avoidance of activities or places that induce traumatic recollections, efforts to avoid thoughts or feelings about the trauma, inability to recall significant details about the trauma, feeling detached or estrangement from others, constricted affect, and a sense of foreshortened future). Criterion D was revised to exclude feelings of guilt and required at least two of six increased arousal symptoms (difficulty in falling or staying asleep, irritability or anger outbursts, concentration impairment, hypervigilance, exaggerated startle response, and physiological reactivity on exposure to events that reflect an aspect of the traumatic event). In a significant departure from the DSM-III, the DSM-III-R provided information involving age-specific features of PTSD (e.g., "young children may not have the sense that they are reliving the past; reliving the trauma occurs in action, through repetitive play," [APA, 1987, p. 249]). Whereas the DSM-III-R text made reference to the expression of symptoms under the heading of age-specific features (e.g., "In younger children, distressing dreams of the event may, within several weeks, change into generalized nightmares of monsters, of rescuing others, or of threats to self or others" (APA, 1987, p. 249). The list of diagnostic symptoms offered scant information relative to the expression of symptoms in youth.

DSM-IV. The APA subsequently initiated a programmatic series of efforts toward the development of the fourth edition of the DSM in 1988. As the DSM-III and DSM-III-R had engendered a significant amount of scientific research (Widiger, Frances, Pincus, Davis, & First, 1991), the development of the DSM-IV primarily relied on literature reviews and a number of clinical trials (Saigh, Green, & Korol, 1996). Viewed along these lines, the DSM-IV PTSD work group (under the co-chairmanship of Jonathan Davidson, M.D., and Edna Foa, Ph.D.) reviewed the available literature (Davidson & Foa, 1993) relative to clinical phenomenology (course, subtypes, and symptomatic manifestations), epidemiology (prevalence, features, and risk factors), and relation to other disorders (e.g., phobias and dissociative disorders). The PTSD work group also performed a series of multisite clinical and community trials (Kilpatrick, Resnick, & Freedy, 1993). The actual field trials (under the direction of Dean Kilpatrick, Ph.D.) were conducted at 5 sites and involved 128 community subjects and 400 patients. The primary goal of these trials was to empirically examine relations between different stressors and PTSD symptoms. Practically speaking, these trials sought to establish if low magnitude stressors such as bereavement could induce PTSD. In addition, the likelihood that divergent stressful events could lead to symptoms of varying onset and duration was also explored. The work group further sought to ascertain if the inclusion of additional symptoms would effect the prevalence of the disorder. Finally, event characteristics (e.g., actual physical injuries or perceptions in response to

various forms of stressful experiences) were assessed to identify variables that might be independently associated with PTSD without reference to the type of event that was experienced.

As earlier studies demonstrated that stressors that could induce PTSD (e.g., sexual assaults and motor vehicle accidents) were relatively common in the United States (Breslau, Davis, Andereski, & Peterson, 1991; Resnick, Kilpatrick, Dansky, Saunders, & Best, 1993), the DSM-IV PTSD work group withdrew the DSM-III-R provision that the stressor which induced the disorder must have been "outside the range of normal human experience" (APA, 1987, p. 247). In its place, Criterion A was amended to require that a person "experienced, witnessed, or been confronted with an event or events that involve actual or threatened death or serious injury, or a threat to the physical integrity to oneself or others" (APA, 1994, p. 428). Criterion A was also revised to state that responses must have "involved intense fear, helplessness, or horror" (APA, 1994, p. 428).

The DSM-IV text specifies that traumatic events may be directly experienced in a number of ways. Direct traumatic experiences encompass "military combat, violent personal assault (sexual assault, physical assault, robbery, mugging)" (APA, 1994, p. 424). The DSM-IV text also indicates that "being kidnapped, being taken hostage, terrorist attack, torture, incarceration as a prisoner of war or in a concentration camp, natural or manmade disasters, severe automobile accidents, or being diagnosed with a life-threatening disease" (APA, 1994, p. 424) constitute examples of directly experienced traumatic events. With reference to youth, the DSM-IV specifically states that "sexually traumatic events may include developmentally inappropriate sexual experiences without threatened or actual violence" (APA, 1994, p. 424). As such, incestuous behaviors that are perpetrated on youth without physical violence are clearly recognized as traumatic events that may lead to the development of the disorder.

The DSM-IV further denotes that PTSD may be induced by observing events such as the "serious injury or unnatural death of another person due to violent assault, accident, war, or disaster or unexpectedly witnessing a dead body or body parts" (APA, 1994, p. 424). A third avenue of traumatization involves receiving information (i.e., verbal mediation) about the stressful experiences of others such as "personal assault, serious accident, or serious injury experienced by a family member or a close friend; learning about the sudden, unexpected death of a family member or close friend; or learning that one's child has a life threatening disease." (APA, 1994, p. 424).

Within the context of the Lebanese conflict, Saigh (1991) described the verbally induced traumatization and subsequent PTSD in an 11-year-old schoolgirl. The girl's problems developed after her parents told her that her uncle died during a war-related shelling incident. The girl also inadvertently overheard a parental conversation wherein it was reported that her uncle's body had been mutilated by shrapnel and that his remains were claimed on the basis of the identity papers that he had carried. Two years after learning about the sudden and insidious death of her uncle, the girl presented with PTSD at a university outpatient clinic. In a related study, Saigh (1992b) demonstrated that the levels of anxiety, depression, and misconduct of the adolescents with verbally mediated PTSD were similar to the levels of distress that were evidenced by adolescents who developed the disorder through direct experience or by observing the traumatic experiences of others. Interestingly, Saigh (1992b) also reported that the anxiety, depression, and misconduct ratings of the PTSD groups (i.e., subjects who developed the disorder through verbal mediation, direct experience, or observation) significantly exceeded the levels of emotional morbidity of a stress-exposed PTSD negative group.

The DSM-IV PTSD work group also rearranged a few of the DSM-III-R symptom clusters and adjusted diagnostic thresholds. Physiological reactivity on exposure to traumatic stimuli was removed from the arousal cluster (Criterion D) and added to the re-experiencing cluster (Criterion B). Criterion B was revised to require the presence of a minimum of one of five reexperiencing symptoms (recurrent thoughts of the traumatic event, recurrent dreams about the traumatic event, intense psychological discomfort at exposure to trauma-reminiscent stimuli, sudden acting

or feeling that the traumatic event was reoccurring, and physiological reactivity on exposure to trauma-reminiscent stimuli). As in the case of the DSM-III-R, Criterion C requires the presence of at least three of seven avoidance or numbing symptoms (e.g., efforts to avoid thoughts, discussions or feelings involving the trauma, avoidance of people, places, or actions that induce recollections of the trauma, significantly reduced interest in significant activities, feelings of detachment, blunted affect, and a sense of a foreshortened future). With the exception of the deletion of physiological reactivity, the symptoms that make up Criterion D in the DSM-IV are identical to the symptoms that appeared in the DSM-III-R. According to the DSM-IV, Criterion D requires the presence of two of five increased arousal symptoms (e.g., outbursts of anger, hypervigilance, difficulty concentrating, sleep impairment, and exaggerated startle response).

The DSM-IV also added a new stipulation (Criterion E) that requires the duration of the symptoms listed under Criteria B, C, and D to be apparent for at least one month. Finally, the DSM-IV maintains that the disturbance must cause "clinically significant distress or impairment in social, occupational, or other important areas of functioning" (Criterion E) (APA, 1994, p. 429). By way of example, Saigh, Mroueh, and Bremner (1997) reported that Metropolitan Achievement Test scores (a predictor of scholastic performance) of adolescents with PTSD were significantly lower than the scores of a stress-exposed comparison group that did not develop the disorder. Table 1.1 presents the diagnostic criteria for PTSD that appear in the DSM-IV.

Associated Features

According to the DSM-IV, individuals with PTSD may experience feelings of guilt. They may also blame themselves for surviving when others did not. Calhoun and Resick (1993) provide a graphic example of the guilt and despondence that was verbalized by an adult rape victim. The victim reported that "I kept it inside and blamed myself for all that happened. I was probably a slut. Nothing mattered anymore" (Calhoun & Resick, p. 71). Individuals with PTSD may also manifest phobic avoidance that severely interferes with daily activities and social interactions. Saigh (1987) described the phobic avoidance of an 11-year-old girl who witnessed the deaths of two pedestrians during a shelling incident. In addition to presenting with trauma-related recollections and nightmares, the girl consistently avoided the intersection where the incident occurred.

Also within the context of associated features, the DSM-IV indicates that interpersonal stressors such as childhood sexual abuse, domestic violence, being held as a hostage or a prisoner of war may be associated with a constellation of symptoms involving:

> *impaired affect modulation; self-destructive and impulsive behavior; dissociative symptoms; somatic complaints; feelings of ineffectiveness; shame; despair; or hopelessness; feeling permanently damaged; a loss of previously sustained beliefs; hostility; social withdrawal; feeling consistently threatened; impaired relationships with others; or a change from the individual's previous personality characteristics.*[3]

The DSM-IV indicates that there may be an increased risk for comorbid anxiety disorders (i.e., agoraphobia, panic disorder, obsessive-compulsive disorder, social phobia, and specific phobia) as well as major depressive disorder, somatization disorder, and substance-related disorders. As will be noted in chapter 2, Sack and his colleagues (1994) examined the psychiatric comorbidity of Cambodian adolescents who emigrated to America after the fall of the brutal Pol Pot regime. Between the ages of 8 to 12 years, the subjects were exposed to exceptional stress (e.g., they were forcibly separated from their parents, made to perform hard labor, given starvation rations, and forced to participate in the execution of civilians). Sack and his colleagues reported that stress exposed Cambodian subjects who developed PTSD were 4.3 times more likely to have a comorbid depressive disorder than stress-exposed youth that did not develop PTSD. These authors also reported that adolescents with PTSD were 3.5 times more likely to have a

[3]Reprinted with permission from the *Diagnostic and Statistical Manual of Mental Disorders,* Fourth Edition. Washington, D.C: American Psychiatric Association, 1994.

TABLE 1.1 DSM-IV Criteria for Posttraumatic Stress Disorder[1]

A. The person has been exposed to a traumatic event in which both of the following have been present:
   1. the person has experienced, witnessed, or been confronted with an event or events that involve actual or threatened death or serious injury, or a threat to the physical integrity to oneself or others.
   2. the person's responses involved intense fear, helplessness, or horror. **Note:** In children it may be expressed by disorganized or agitated behavior.

B. The traumatic event is reexperienced in at least two of the following ways:
   1. recurrent and intrusive distressing recollections of the event, including images, thoughts, or perceptions. **Note:** In young children, repetitive play may occur in which themes or aspects of the trauma are expressed.
   2. recurrent distressing dreams of the event. **Note:** In young children, there may be frightening dreams without recognizable content.
   3. acting or feeling as if the traumatic event were recurring (includes sense of reliving the experience, illusions, hallucinations, and dissociative flashback episodes, including those that occur on awakening or when intoxicated). **Note:** In young children, trauma-specific reenactment may occur.
   4. intense psychological distress at exposure to internal or external cues that resemble an aspect of the traumatic event.
   5. physiological reactivity upon exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event.

C. Persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (not present before the trauma), as indicated by at least three of the following:
   1. efforts to avoid thoughts, feelings, or conversations associated with the trauma.
   2. efforts to avoid activities, places, or people that arouse recollections of the trauma.
   3. inability to recall an important aspect of the trauma.
   4. markedly diminished interest or participation in significant activities.
   5. feeling of detachment or estrangement from others.
   6. restricted range of affect.
   7. sense of foreshortened future (e.g., does not expect to have a career, marriage, children, or a normal life span).

D. Persistent symptoms of increased arousal (not present before the trauma), as indicated by at least two of the following:
   1. difficulty in falling or staying asleep.
   2. irritability or anger outbursts.
   3. difficulty concentrating.
   4. hypervigilance.
   5. exaggerated startle response.

E. Duration of the disturbance (symptoms in B, C, and D) is more than one month.

F. The disturbance causes clinically significant distress or impairments in social, occupational, or other important areas of functioning.

Specify if:

Acute: if duration of symptoms is less than three months.

Chronic: if duration of symptoms is three months or more.

Specify if:

With Delayed Onset: onset of symptoms at least three months or more.

[1]Reprinted with permission from the *Diagnostic and Statistical Manual of Mental Disorders,* Fourth Edition. Copyright 1994 American Psychiatric Association

comorbid anxiety disorder. Likewise, Kesseler, Sonnega, Bromet, Hughes, and Nelson's (1992) national comorbidity survey determined that approximately 48 percent of the men and women with PTSD had a lifetime history of major depression. In contrast, 11.7 percent of the PTSD negative males and 18.8 percent of the PTSD negative females had a lifetime history involving major depression. In terms of substance-related disorders, 51.9 percent and 28 percent of the respective PTSD males and females abused alcohol in contrast to 34.4 precent and 13.5 percent of the PTSD negative males and females. Agoraphobia was observed in 18 percent of the males and 22.4 percent of the females with PTSD, compared to 4.1 percent and 7.8 percent of PTSD negative males and females.

Specific Culture and Age Features

The DSM-IV cautions that individuals who recently immigrated from areas of social unrest or conflict may have elevated rates of PTSD. In a methodologically rigorous series of longitudinal studies that will be described in chapter 2, Kinzie, Sack, and their colleagues (Kinzie, Sack, Angell, & Mason, 1986; Kinzie, Sack, Angell, Clarke, & Ben, 1989) observed PTSD prevalence estimates that ranged from 18.2 percent to 50.0 percent among Cambodian youth who immigrated to the United States. Ekbald (1993) also observed high levels of psychiatric morbidity among Bosnian youth who immigrated to Sweden.

The DSM-IV indicates that younger children may experience trauma-related nightmares that may revert to generalized nightmares over time. It is also indicated that "young children usually do not have the sense that they are reliving the past; rather, the reliving of the trauma may occur through repetitive play" (APA, 1994, p. 426). Hendriks, Black, and Kaplan (1993) provide a vivid description of the trauma-specific play of a 3-year-old British school boy who actually saw his mother kill his father. The authors reported that the boy reenacted the murder by using doll figures to symbolize his parents. According to Hendriks et al. (1993), "He picked up a toy scalpel belonging to a set of toys that we use for children being helped to prepare for a surgical operation and putting it in the hand of the mother doll, he used it as a hammer, repeatedly hitting the face of the father doll" (pp. 95–96).

In addition, the DSM-IV reports that "in children the sense of a foreshortened future may be evidenced by the belief that life will be too short to include becoming an adult" (APA, 1994, p. 426). It is also indicated that children may present with "omen formation" or the ability to foresee negative events in the future.

Course and Prevalence

The DSM-IV indicates that the disorder may occur at any age (including childhood). It is reported that symptoms generally become evident within the first three months following the trauma. On the other hand, it is also indicated that there may be a delay of several months or years before symptoms are evident. The DSM-IV further indicates that PTSD is frequently preceded by acute stress disorder (a rather similar disorder that may occur immediately after stress exposure and may last from 2 days to 4 weeks). In addition, the DSM-IV states that the symptom expression may vary over time and that "the duration of symptoms varies, with complete recovery occurring within three months in approximately half of the cases" (APA, 1994, p. 426). On the other hand, it is cautioned that PTSD symptoms may persist for more than 12 months in many cases. Among a sample of combat veterans that developed the disorder, Bremner, Southwick, Darnell, and Charney (1996) reported that symptoms occurred within a few years of stress exposure. These authors also reported that symptoms remained chronic and unrelenting five years following the initial stress exposure (see Figure 1.1).

As will be seen in chapters 2 through 5, the prevalence of the disorder is marked by great variance. For the time being, it may be said that the child, adolescent, and adult PTSD literature reflects differential levels of psychiatric morbidity.

Case Examples

Examined from a clinical perspective, Table 1.2 presents case illustrations that reflect the expression of PTSD symptoms in a 12-year-old female and a 50-

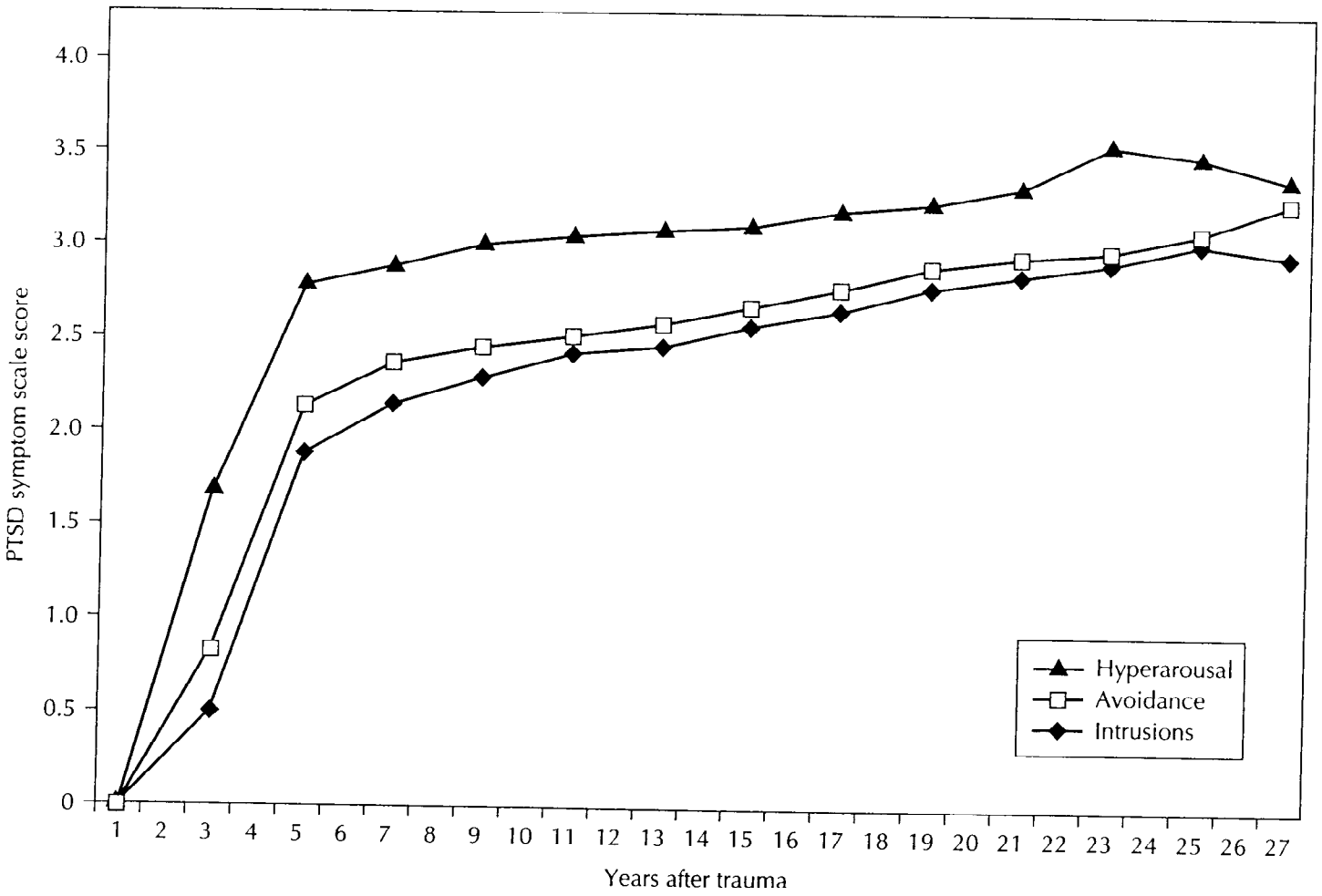

FIGURE 1.1 Longitudinal Course of PTSD[1]

[1]From Bremner, D. J., Southwick, S. M., Darnell, A., & Charney, D. S. (1996). Chronic PTSD in Vietnam combat veterans: Course of illness and substance abuse. *American Journal of Psychiatry, 153,* 369–375. Copyright American Psychiatric Press. Reprinted with permission.

year-old Vietnam veteran. Despite the variations in their developmental and stress exposure histories, the cases serve to underscore the unique constellation of symptoms that are indicative of the disorder. The illustrations also serve to illustrate that PTSD may occur in conjunction with other disorders.

SUMMARY

Information pertaining to the effects of extreme stress has been chronicled for centuries. Accounts dating from the Great Fire of London have repeatedly documented the unique symptoms of what the DSM-III Reactive Disorders Committee came to call posttraumatic stress disorder. According to the DSM-III, PTSD was indicated by the "development of characteristic symptoms following a psychiatrically traumatic event that is generally beyond the realm of normal human experience" (APA, 1980, p. 236). The DSM-III PTSD classification also indicated that the "stressor producing this syndrome would evoke significant symptoms of distress in most people and is generally outside the range of such common experiences as simple bereavement, chronic illness, business losses or marital conflict" (APA, 1980, p. 236). The adoption of this perspective clearly served to integrate theory and practice as it acknowledged that divergent stressors (e.g., sexual assault, war-related events, serious accidents, or disasters) could induce comparable patterns of psychiatric morbidity.

TABLE 1.2

Clinical Examples of PTSD

Maria, a 12-year-old youth, was sexually assaulted by her 40-year-old uncle. Prior to the incident, she had maintained a B average and had been actively involved in soccer and softball leagues. Although she had been a popular and outgoing youth, Maria had not dated or experienced a sexual relation. According to Maria's testimony, her uncle visited her home when her parents were away. After he learned that her parents were out, he began to hug and fondle her. Although she attempted to stop him, she was unable to prevent him from pinning her down, pulling off her garments, and forcing his penis into her vagina. Maria experienced a great deal of pain during the assault. She felt terrified and helpless as her uncle forced himself into her. At times, she felt as though the assault was part of an awful nightmare. Afterwards, her uncle said that he had always cared for her. He told her that "these things happen all the time between adults." He also told her that her reputation would be ruined if others were to learn about what had happened. Before leaving, he cautioned that "If you ever tell, I'll have to deny it. Telling others will only cause a lot of trouble for you. Just keep this between us and everything will be fine."

For more than a year, Maria did not tell anyone about the rape. She blamed herself for allowing the incident to occur. In the days and months that followed, she constantly thought about the incident. She also worried about the possibility of having contracted HIV. These thoughts were associated with increased psychophysiological arousal (her heart beat faster and she perspired). Rape-related thoughts and mental images occurred in a variety of contexts and stimuli associated with the assault (e.g., the music that had been playing when the rape occurred) exacerbated her symptoms. She also began to experience very graphic rape-related nightmares. Maria frequently woke to find herself breathing rapidly and perspiring. She was not able to go back to sleep after these nightmares. Maria also avoided situations or places that reminded her of the assault. She avoided men and destroyed the dress that she had worn on the day of the assault. She also began to blame herself for what had happened. Maria reasoned that the assault would not have happened if she had not let her uncle into the house or if she had resisted in a more forceful manner. In addition, she began to experience pervasive feelings of sadness. She experienced difficulty in formulating decisions and began to lose weight. She felt less and less energetic.

While Maria did not inform her parents, they noticed that something was very wrong. Whereas she had been a sociable youth, she began to avoid friends and relatives. She lost interest in playing soccer and softball. Her parents noticed that Maria was becoming increasingly irritable and frequently remained in her bedroom for hours at a time. Although she had been a good student, her school grades deteriorated. Her arithmetic, spelling, and science scores were significantly below grade level as denoted by standardized exams. Her younger sister reported that Maria was crying and calling out in her sleep. One year after the assault, one of her teachers presented a lesson on sexual and physical abuse. Maria was surprised to learn that assault victims frequently suffer in silence because they harbor unjustified feelings of shame and guilt. Three days later, Maria told the teacher that she had been raped. While the teacher attempted to comfort her, she also said that she had to advise Maria's parents and the authorities about the allegation.

Maria's parents were shocked when they learned about the assault. Although they attempted to comfort their daughter, her distress was compounded when she was questioned by a child welfare caseworker. Her discomfort was further exasperated when she was reinterviewed by a prosecutor from the district attorney's office. Her uncle (who was interviewed in the presence of his lawyer) was not arraigned due to a perceived lack of evidence.

PETER

Peter, a 50-year-old Army veteran, was born and raised in a small town in Connecticut. He played on the high school football team and graduated with a C average in 1966. He had a pleasant childhood and enjoyed a warm relationship with his parents

and two brothers. While in school, Peter served as an altar boy, and his parish priest later described him as "a fine young man, good, kind, and happy." He subsequently went to work in the construction industry and dated a woman that he had known in high school. Shortly after his high school graduation, Peter received a draft notice and was inducted into the U.S. Army on August 7, 1967.

He received his basic training at Fort Jackson, South Carolina and went on to attend artillery training at Fort Sill, Oklahoma. Following a 21-day leave, he was sent to a field artillery company on March 18, 1968. In this capacity he served as an artilleryman and was called on to provide fire support for U.S. and South Vietnamese forces. Peter was involved in multiple close engagements with the enemy. During one of these engagements, his unit had been providing support fire for a special forces South Vietnamese company. At the time, his unit's perimeter was being guarded by a company of U.S. 101st Airborne. Peter recalls that his captain warned that "Something is wrong. It's too quiet, we are going to get hit." He further recalls that at sunset trip flares went off and that a bleeding soldier ran into his hootch and said that he had been hit. Peter indicated that

> *Next, rounds were being fired and all hell broke loose and M-16s were going off all over. Then I realized that this was it and we all grabbed our M-16s. The Viet Cong had gotten through the Airborne guys guarding the perimeter. After a while our captain called for "bee hives" to be used. We use them when you are about to be over run. We readjusted the rounds and our gun was set to fire at point blank range. Anyone in front would be blown away. Our Airborne guys heard us yell that we were going to fire beehives and they knew what that meant. We tried to warn as many as we could and wait as long as possible before using them. Finally, we used one round after the other as it was really getting crazy at this point. The Viet Cong had already gotten through the perimeter and were coming for us. We ended up killing and wounding a lot of the enemy and many of our own men. I was the assistant gunner which meant I actually fired the gun. I pulled the trigger. At one point during the attack, I was standing at a wall made of sandbags and the captain yelled to me "Get your head down." He made everyone get out of the communication bunker and called for air support and medivacs. The enemy blew up the communication bunker with him inside. All that remained was a charred body. You would never have believed that it was once a human being. We kept firing bee hives for most of the night. When fighting stopped at dawn, you could see bodies all over the ground. Before the assault, there were 47 men in my battery, afterwards, we had 14 left. Fourteen. We walked around dazed, confused, and depressed for days.*

After 11 months in Vietnam, Peter was put on a helicopter and transported out of the field. Within a matter of days, he was flown back to San Francisco and given an honorable discharge. He returned to Connecticut and was given a warm welcome by his family. Although he had only been away for two years, Peter felt uncomfortable at home. He found it difficult to sleep and began to have nightmares about Vietnam. He also began to experience repeated and intrusive trauma-thoughts about his combat experiences. When his parents and former friends asked Peter about Vietnam, he declined to discuss his experiences.

Peter began to avoid the company of many of his former friends. He felt "different" and could not relate to many of the people that he had grown up with. He dated his former high school girlfriend and married after a brief engagement. Two years later, his wife requested and received a divorce. Peter experienced difficulty in concentrating and evidenced a startle response. He was always on guard and constantly checked his residence for intruders. Peter also began to experience sudden and overwhelming feelings of panic. While these episodes spontaneously remitted, he experienced palpitations, sweating, shortness of breath, chest pains, nausea, a fear of dying, and paresthesia during the attacks. Although he was repeatedly seen by a number of physicians, he consistently received negative diagnoses for physical ailments.

Shortly after his discharge, he went to work for his former employer. After six months on the job, a coworker made a disparaging remark about Vietnam veterans. Peter recalled that he "seemed to snap." He subsequently learned that several workmen had to physically restrain him after he pummeled his verbal assailant. While charges were not filed, Peter lost his job. He went on to gain and lose employment with a number of firms. Peter has not been gainfully employed since 1987. He receives assistance from the Veteran's Administration for a service-connected disability (PTSD).

In addition to stress exposure, the DSM-III included four sets of polymorphic symptom clusters for making a PTSD diagnosis.

In keeping with the precedent that was set by DSM-III, the 1987 nosology indicated that PTSD may occur after a "psychologically distressing event that is outside the range of normal human experience" (APA, 1987, p. 247). While expanding the number of symptoms that were necessary to make a diagnosis and rearranging a number of diagnostic thresholds, it may be said that the DSM-III-R PTSD classification was quite analogous to its DSM-III predecessor.

The APA subsequently initiated a programmatic series of efforts toward the publication of the fourth edition of the DSM in 1988. Within this context, the DSM-IV PTSD work group reviewed the available literature relative to clinical PTSD phenomenology, epidemiology, and its relation to other disorders. This work group also performed a series of multisite clinical and community trials. The primary goal of these trials was to empirically examine relations between different stressors and PTSD symptoms. These trials also sought to establish if low magnitude stressors such as bereavement could induce PTSD. In addition, the likelihood that divergent stressful events could lead to symptoms of varying onset and duration was also explored. The research further sought to ascertain if the inclusion of additional symptoms would effect the prevalence of the disorder. Finally, event characteristics were assessed to identify variables that might be independently associated with PTSD without reference to the type of event that was experienced.

As earlier studies demonstrated that the stressors that could induce PTSD were relatively common, the DSM-IV PTSD work group withdrew the DSM-III and DSM-III-R provision that the stressor that induced the disorder must have been "outside the range of normal human experience." In its place, Criterion A was amended to require that a person had "experienced, witnessed, or been confronted with an event or events that involve actual or threatened death or serious injury, or a threat to the physical integrity to oneself or others" (APA, 1994, p. 428). The DSM-IV also rearranged a few of the DSM-III-R symptom clusters and adjusted diagnostic thresholds. Finally, the classification was revised to indicate that the disturbance must cause "clinically significant distress or impairment in social, occupational, or other important areas of functioning" (APA, 1994, p. 429).

While it is expected that the DSM-IV will not be amended for at least a decade, it is anticipated that future case-control studies that control for the confounding effects of comorbid disorders will be conducted. Over time, it may become evident that the DSM-IV PTSD criteria may not encompass the entire spectrum of symptoms that are associated with reactivity to traumatic stressors. In the future, there may be an increased focus on how symptoms of PTSD relate to other stress-related symptoms such as depression, personality disturbances, anxiety, dissociation, and substance abuse.

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